

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II
OF THE PATENT COOPERATION TREATY)
(PCT Rules 44bis.3(c) and 72.2)

To:

KANEKA CORPORATION
2-4, Nakanoshima 3-chome
Kita-ku, Osaka-shi
Osaka 5308288
JAPON

Date of mailing (day/month/year)

28 September 2006 (28.09.2006)

Applicant's or agent's file reference

B040008WO01-

IMPORTANT NOTIFICATION

International application No.

PCT/JP2005/000951

International filing date (day/month/year)

26 January 2005 (26.01.2005)

Applicant

KANEKA CORPORATION et al

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

None

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

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Authorized officer

Masashi Honda

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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference B040008WO01-	FOR FURTHER ACTION	See item 4 below
International application No. PCT/JP2005/000951	International filing date (<i>day/month/year</i>) 26 January 2005 (26.01.2005)	Priority date (<i>day/month/year</i>) 04 February 2004 (04.02.2004)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant KANEKA CORPORATION		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the report |
| <input type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input checked="" type="checkbox"/> | Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Date of issuance of this report 19 September 2006 (19.09.2006)
Facsimile No. +41 22 338 82 70	Authorized officer <div style="text-align: center; font-weight: bold; margin-top: 10px;">Masashi Honda</div> e-mail: pt08@wipo.int

PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing
(day/month/year)

Applicant's or agent's file reference

B040008WO01-

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/JP2005/000951

International filing date (day/month/year)

26.01.2005

Priority date (day/month/year)

04.02.2004

International Patent Classification (IPC) or both national classification and IPC

Applicant

KANEKA CORPORATION

1. This opinion contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the opinion |
| <input type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input checked="" type="checkbox"/> | Box No. VIII | Certain observations on the international application |

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/000951

Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language
_____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☒ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☒ in computer readable form
 - c. time of filing/furnishing
☐ contained in the international application as filed.
☒ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/000951

Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement								
1. Statement									
Novelty (N)		<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: right;">Claims</td> <td style="border-bottom: 1px solid black;">1-11, 15</td> <td style="width: 10%; text-align: right;">YES</td> </tr> <tr> <td style="text-align: right;">Claims</td> <td style="border-bottom: 1px solid black;">12-14, 16</td> <td style="text-align: right;">NO</td> </tr> </table>	Claims	1-11, 15	YES	Claims	12-14, 16	NO	
Claims	1-11, 15	YES							
Claims	12-14, 16	NO							
Inventive step (IS)		<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: right;">Claims</td> <td style="border-bottom: 1px solid black;">1-11, 15</td> <td style="width: 10%; text-align: right;">YES</td> </tr> <tr> <td style="text-align: right;">Claims</td> <td style="border-bottom: 1px solid black;">12-14, 16</td> <td style="text-align: right;">NO</td> </tr> </table>	Claims	1-11, 15	YES	Claims	12-14, 16	NO	
Claims	1-11, 15	YES							
Claims	12-14, 16	NO							
Industrial applicability (IA)		<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; text-align: right;">Claims</td> <td style="border-bottom: 1px solid black;">1-16</td> <td style="width: 10%; text-align: right;">YES</td> </tr> <tr> <td style="text-align: right;">Claims</td> <td style="border-bottom: 1px solid black;"></td> <td style="text-align: right;">NO</td> </tr> </table>	Claims	1-16	YES	Claims		NO	
Claims	1-16	YES							
Claims		NO							
2. Citations and explanations:									
<p>Document 1: JP 2843596 B2 (Kyowa Hakko Kogyo Co., Ltd.), 06 January 1999</p> <p>Document 2: JP 7-106149 B2 (Sagami Chemical Research Center), 15 November 1995</p> <p>Document 3: A. OZEKI et al., "Enzymatic production of D-alanine from DL-alaninamide by novel D-alaninamide specific amide hydrolase," Biosci. Biotech. Biochem., 1992 Dec., Vol. 56, No. 12, pp. 1980-1984</p> <p>Document 4: Y. ASANO et al., "Purification and characterization of amidase which participates in nitrile degradation," Agric. Biol. Chem., 1982, Vol. 46, No. 5, pp. 1175-1181</p> <p><u>Claims 12-14 and 16</u></p> <p>The inventions described in claims 12-14 and 16 do not appear to be novel or to involve an inventive step based on documents 1-4 cited in the ISR.</p> <p>Documents 1-4 describe microorganisms belonging to the genus <i>Arthrobacter</i> and methods of manufacturing a amidases by culturing these microorganisms. The amidases produced by the microorganisms described in documents 1-4 are not specified in terms of amino acid sequence, but the microorganisms described in claim 12 and documents 1-4 cannot be distinguished as things because they all belong to the genus <i>Arthrobacter</i> which produces amidase.</p>									
(Continued)									

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/000951

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Regarding the “specific strain” of claim 13, the specification does not contain any specific description regarding the nature of this “specific strain”, and it is unclear whether or not this is a microorganism that produces an amidase having properties equivalent to those of the amidase produced by the KNK1101J strain.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/000951

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: BOX V.2

Claims 1-11 and 15

The inventions described in claims 1-11 and 15 appear to be novel and to involve an inventive step over the documents cited in the ISR.

The documents cited in the ISR neither describe nor suggest an amidase consisting of the amino acid sequence represented by SEQ ID NO:1 of the present application which stereospecifically hydrolyzes D-phenylalaninamide, nor was this technical common knowledge before the priority date for this application. Moreover, no amidase having strong homology with the amino acid sequence represented by SEQ ID NO:1 of the present application was known before the priority date for this application. Moreover, in terms of their physiochemical properties, the purified amidases described in documents 1, 3 and 4 are also found to be all different proteins from the amidase consisting of the amino acid sequence represented by SEQ ID NO:1 of the present application.